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A loophole to the electromagnetic cascade theory : Solving the lithium problem with a sterile neutrino.

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After a recap of the standard e.m. cascade theory, I will discuss a loophole that can have a large effect in the early universe, notably in altering primordial nucleosynthesis bounds on electromagnetically decaying relic particles. I will finally show how this may greatly simplify the possibility to address the long-standing “lithium problem” in terms of new physics models, and solve it explicitly with a proof-of-principle particle physics model, namely the sterile neutrino.

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